AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA", and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Seaman Paper Company of Massachusetts, Inc.
P.O. Box 21
Baldwinville, MA 01436

is authorized to discharge from a facility located at

Seaman Paper Company of Massachusetts, Inc.
51 Main Street
Otter River, MA 01436

to receiving water named

Otter River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month following 60 days after signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on October 14, 2004, which expired on September 30, 2007.

This permit consists of 13 pages in Part I including effluent limitations, monitoring requirements, 7 pages in Attachment 1 – Freshwater Chronic Toxicity Test Procedure and Protocol, and 25 pages in Part II including Standard Conditions and Definitions.

Signed this 30th day of September, 2008

/s/ SIGNATURE ON FILE

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Glenn Haas, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge treated process water through **Outfall Serial Number 001** to Otter River. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Surface Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements [1]	
		Average Monthly	Maximum Daily	Measurement Frequency [3]	Sample Type
Flow Effluent Upstream [5]	 MGD cfs	 1.1 Report	 1.4 Report [6]	 Continuous 1/Day	 Meter Monitor
BOD [13] (May 1st – October 31st) (November 1st – April 30th)	 lbs/day lbs/day	 286 400	 400 700	 1/Week 1/Week	 Composite [4] Composite [4]
Total Suspended Solids (TSS) [13] (May 1st – October 31st) (November 1st – April 30th)	 lbs/day lbs/day	 400 700	 600 900	 1/Week 1/Week	 Composite [4] Composite [4]
pH[2]	SU	----	6.5 – 8.3	1/Day	Grab
Phosphorus (April 1st – October 31st)	mg/L	0.2	----	2/Week	Composite [4]

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements [1]	
		Average Monthly	Maximum Daily	Measurement Frequency [3]	Sample Type
Temperature [6]					
Effluent	°F	Report	90°F	2/Week	Grab
Upstream	°F	Report	Report [6]	2/Week	Grab
PRTI [10]	°F	Report	Report	2/Week	Calculate
Total Aluminum [12]	mg/L	0.29	2.1	2/Year	Composite [4]
Dissolved Oxygen (June 1st – September 30th)	mg/L	----	Report Minimum [11]	2/Month	Grab
Ammonia	mg/L	Report	----	1/Week	Composite [4]
Iron	mg/L	Report	Report	1/Week	Composite [4]
Whole Effluent Toxicity (WET)					
Acute LC_{50} [7,8]	%	≥100		1/Quarter [2]	Composite [4]
Chronic C-NOEC [7,8]	%	≥30		1/Quarter [2]	Composite [4]
Hardness [9]	mg/L	Report		1/Quarter [2]	Composite [4]
Alkalinity [9]	mg/L	Report		1/Quarter [2]	Composite [4]
pH [9]	SU	Report		1/Quarter [2]	Composite [4]
Specific Conductance [9]	µmhos/cm	Report		1/Quarter [2]	Composite [4]
Total Solids [9]	mg/L	Report		1/Quarter [2]	Composite [4]
Total Ammonia Nitrogen (as N) [9]	mg/L	Report		1/Quarter [2]	Composite [4]
Total Organic Carbon [9]	mg/L	Report		1/Quarter [2]	Composite [4]
Total Residual Chlorine [9]	mg/L	Report		1/Quarter [2]	Composite [4]
Dissolved Oxygen [9]	mg/L	Report		1/Quarter [2]	Composite [4]

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements [1]	
		Average Monthly	Maximum Daily	Measurement Frequency [3]	Sample Type
Whole Effluent Toxicity (continued)					
Total Cadmium [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Chromium [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Lead [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Copper [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Zinc [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Nickel [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Aluminum [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Magnesium [9]	mg/L	Report		1/Quarter [3]	Composite [4]
Total Calcium [9]	mg/L	Report		1/Quarter [3]	Composite [4]

See pages 5 –7 for explanation of footnotes.

(Part I.A.1, Continued)

Footnotes:

1. Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of all the discharge from the site through the outfall, prior to mixing with the receiving waters. Specifically, effluent samples for Outfall 001 shall be collected from the channel ("rippleway") that receives final plant effluent from the secondary clarifier, unless otherwise specified. Any changes in sampling location must be approved in writing by EPA and MassDEP. All samples shall be tested in accordance with the procedures in 40 CFR 136, unless specified elsewhere in the permit.

2. Required for state certification.

3. Sampling frequency of 1/day is defined as the sampling of one (1) discharge event during each 24-hour period, when discharge occurs. Sampling frequency of 1/week is defined as the sampling of one (1) discharge event in each calendar week, when discharge occurs. Sampling frequency of 2/week is defined as the sampling of two (2) discharge events in each calendar week, when discharge occurs. Sampling frequency of 2/month is defined as the sampling of two (2) discharge events in each calendar month, when discharge occurs. Sampling frequency of 1/quarter is defined as the sampling of one (1) discharge event in each calendar quarter, when discharge occurs. Quarterly samples shall be collected during the second weeks in January, April, July, and October. Sampling frequency of 2/year is defined as the sampling of two (2) discharge events in each calendar year, when discharge occurs. One biannual sample shall be collected during the time period from (June 1st – September 30th) and the other shall be collected during the time period from (October 1st – May 31st). The permittee shall submit the results to EPA of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(l)(4)(ii).

4. A 24-hour composite will consist of twenty-four (24) grab samples collected at hourly intervals during a twenty-four hour period (i.e., 0700 Monday to 0700 Tuesday), combined proportionally to flow.

5. The permittee shall obtain daily ambient upstream river flow readings from the USGS Gage No. 01163200, located at Turner Street in Otter River.

6. The permittee shall report the upstream ambient river temperature and the ambient river flow rate concurrent with the daily maximum discharge temperature reported for Outfall 001. The permittee shall report the daily ambient upstream river water temperature which was taken as close in time as possible, but no greater than 1 hour, from the reported daily maximum discharge temperature. The permittee shall report the ambient river flow rate that corresponds to the same day that the maximum daily effluent temperature for the month occurred. The upstream sampling location shall be representative of naturally occurring conditions in the Otter River and must be taken prior to mixing with any of the discharges from Seaman Paper. The permit may be reopened to include additional temperature limits if the monitoring indicates that the effluent is causing or contributing to an exceedence of water quality standards.

7. The permittee shall conduct quarterly chronic (and modified acute) toxicity tests. The chronic test may be used to calculate the acute LC_{50} at the 48 hour exposure interval. The permittee shall test the daphnid, Ceriodaphnia dubia. Toxicity test samples shall be collected during the second week of the months of January, April, July, and October. The test results shall be submitted by the last day of the month following the completion of the test. The

results are due February 28th, May 31st, August 31st, and November 30th, respectively. The tests must be performed in accordance with test procedures and protocols specified in Attachment 1 of the permit.

Test Dates – Second Week in:	Submit Results by:	Test Species	Acute Limit LC_{50}	Chronic Limit C-NOEC
January April July October	February 28th May 31st August 31st November 30th	Ceriodaphnia dubia (Daphnid)	≥ 100 %	≥ 30 %

After submitting one year and a minimum of four consecutive sets of WET test results, all of which demonstrate compliance with the WET permit limits, the permittee may request a reduction in the WET testing requirements. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from EPA that the WET testing requirement has been changed.

8. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlines in Section IV (Dilution Water) of Attachment 1 in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in Attachment 1, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance Document is revoked, the permittee shall revert to obtaining approval as outlined in Attachment 1. The "Guidance Document" has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in Attachment 1.

9. For each Whole Effluent Toxicity (WET) test the permittee shall report on the appropriate Discharge Monitoring Report (DMR), the concentrations of the Hardness, Total Ammonia Nitrogen as Nitrogen, Alkalinity, pH, Specific Conductance, Total Solids, Total Organic Carbon, Total Residual Chlorine, Dissolved Oxygen, Aluminum, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Magnesium, and Calcium found in the 100 percent effluent sample. Metals shall be reported as total recoverable concentrations. The permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.

10. The permittee shall calculate the Predicted River Temperature Increase (PRTI) for each temperature measurement using the equation below. The PRTI calculation shall use the measured effluent temperature, concurrent measured effluent flow, concurrent upstream river temperature, and the concurrent upstream river flow at the facility. Concurrent upstream river temperature shall be measured as close in time as possible, but no greater than one (1) hour from the measured effluent temperature. Concurrent upstream river flow and effluent flow shall be taken on the same day as the measured effluent temperature.

$$\textbf{PRTI (°F)} = \frac{[(\text{Flow}_{\text{Concurrent001}}\ \text{MGD})*(\text{Temp}_{001}\ °\text{F} - \text{Temp}_{\text{ConcurrentUpstream}}\ °\text{F})]}{(\text{Flow}_{\text{ConcurrentUpstream}}\ \text{cfs})\ (0.6464\ \text{MGD/cfs})}$$

11. Report the lowest recorded dissolved oxygen concentration on the DMRs each month.

12. The permittee shall submit monthly DMRs, and during months when no tests are performed, enter "NODI 9" for that month.

13. These BOD and TSS limits do not apply during low flow conditions. During low flow conditions, the BOD and TSS limits in Part I.A.2 apply.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

2. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge treated process water during low flow conditions (as defined in footnote 1) through **Outfall Serial Number 001A** to Otter River. Such a low flow condition discharge shall: 1) be limited and monitored by the permittee as specified below for BOD and TSS and as specified in Part I.A.2 for other effluent characteristics; and 2) not cause a violation of the State Surface Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements [1]	
		Average Monthly	Maximum Daily	Measurement Frequency [3]	Sample Type
Flow Upstream [4]	cfs	Report	Report	1/Day	Monitor
BOD [2] (May 1st – October 31st)	lbs/day	150 [6]	200 [5]	1/Week	Composite [7]
Total Suspended Solids (TSS) [2] (May 1st – October 31st)	lbs/day	150 [6]	200 [5]	1/Week	Composite [7]

See page 9 for explanation of footnotes.

(Part I.A.2, Continued)
Footnotes:

1. Samples taken in compliance with the monitoring requirements specified above for Outfall 001A shall be taken at the same monitoring point as specified for Outfall 001 in Part I.A.1 of the permit, when the total daily flow in the receiving water, as measured at the USGS Gage Station No. 01163200, has been equal to or less than 17 cfs for 30 or more consecutive days. Therefore, Outfall 001A is the discharge through Outfall 001 during low flow conditions.

2. In the event of normal upstream flow conditions (greater than 17 cfs), or low flow conditions (equal to or less than 17 cfs) that are not consecutively 30 days in length, the permittee shall enter "NODI 9" on the DMR for this month, and report the required parameters in Part I.A.1 of the permit for Outfall 001.

3. Sampling frequency of 1/day is defined as the sampling of one (1) discharge event during each 24-hour period, when discharge occurs. Sampling frequency of 1/week is defined as the sampling of one (1) discharge event in each calendar week, when discharge occurs. The permittee shall submit the results to EPA of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(l)(4)(ii).

4. The permittee shall obtain daily ambient upstream river flow readings from the USGS Gage No. 01163200, located at Turner Street in Otter River.

5. When the 30th consecutive day of low flow is reached, and until the total daily flow of the receiving water for a day exceeds 17 cfs, the permittee shall achieve maximum daily limits of 200 lbs/day for both BOD and TSS.

   For example, if on June 15th, the total daily receiving water flow fell below 17 cfs and remained under 17 cfs through July 15th, the permittee shall achieve the maximum daily limit of 200 lbs/day for both BOD and TSS starting on July 15th and continuing for each day the total daily flow remains below 17 cfs.

6. When the 30th consecutive day of low flow is reached, if the total daily flow in the receiving water remains below 17 cfs for an additional 30 consecutive days, the permittee shall achieve 30 day average limits of 150 lbs/day for both BOD and TSS.

   For example, if on June 15th, the total daily receiving water flow fell below 17 cfs and remained under 17 cfs through July 15th, and then the total daily flow remains below 17cfs for an additional 30 consecutive days until August 14th, the permittee shall achieve 30 day average limits for BOD and TSS on August 14th, using all effluent data collected during the 30 day period (since July 15th). As long as the daily receiving water flow remains under 17 cfs, the permittee would be subject to the limits; the 30 day average for subsequent days would be calculated using effluent sampling results from that day and the previous 29 days.

7. A 24-hour composite will consist of twenty-four (24) grab samples collected at hourly intervals during a twenty-four hour period (i.e., 0700 Monday to 0700 Tuesday), combined proportionally to flow.

Part I.A. (Continued)

3. The pH of the effluent shall not be less than 6.5 or greater than 8.3 at any time unless these values are exceeded as a result of natural causes.

4. The discharge shall not cause objectionable discoloration of the receiving waters.

5. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time in other than trace amounts.

6. The permittee shall not use fungicides or slimacides containing trichlorophenol or pentachlorophenol.

7. The discharge shall not contain materials in concentrations or combinations which are hazardous or toxic to human health, aquatic life of the receiving surface waters or which would impair the uses designated by its classification.

8. EPA may modify this permit in accordance with EPA regulations in 40 Code of Federal Regulations (CFR) §122.62 and §122.63 to incorporate more stringent effluent limitations, increase the frequency of analyses, or impose additional sampling and analytical requirements.

9. All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

   a. That any activity has occurred or will occur which would result in the discharge, on a routine basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 µg/l);

      (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrite; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

      (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R.§122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 C.F.R.§122.44(f).

   b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R.§122.21(g)(7).

(4) Any other notification level established by the Director in accordance with 40 C.F.R.§122.44(f).

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

10. Toxics Control

a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

11. No intake water shall be used for cooling purposes.

12. The rise in temperature of the receiving water due to a discharge shall not exceed 5°F.

B. REOPENER CLAUSES

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. Controls any pollutants not limited in the permit.

C. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the following month. Signed and dated originals of these, and all other reports required herein, shall be submitted to EPA at the following address:

Environmental Protection Agency, Region 1
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

Signed and dated Discharge Monitoring Report Form(s) and all other reports required by this permit shall also be submitted to the State at the following addresses:

Massachusetts Department of Environmental Protection
Central Regional Office
Bureau of Waste Prevention
627 Main Street
Worcester, Massachusetts 01608

and

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

D. STATE PERMIT CONDITIONS

1. This discharge permit is issued jointly by the EPA and the MassDEP under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap. 21, §43 and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.

2. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as a NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal

or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.